Supporting Information

Figure SI 1. Left: TEM images of some typical areas of A₂ (top) and B₂ (bottom) specimens chosen for electron diffraction experiments. Middle: the corresponding SAED patterns. Right: the indexing procedure of the SAED pattern, performed with the JEMS software.

Figure SI 2. HRTEM images taken on two typical aggregates representative of the specimens which contain relative amounts of silver of about 0.1 before annealing (sample A₁, left) and after annealing (sample A₂, right).
**Figure SI 3.** Nitrogen adsorption isotherms for the as-prepared A₁ (a) and annealed A₂ (b) specimens.

**Figure SI 4.** Pores distribution for the as-prepared A₁ (a) and annealed A₂ (b) specimens.

**Figure SI 5.** Histograms illustrating the silver particle size distribution for the as-prepared A₁ (left) and annealed A₂ (right) samples.